NORTEL NETWORKS

Enterprise Edge 2.0 TSP Configuration Guide

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Introduction to Enterprise Edge TSP 1

The Enterprise Edge Computer Telephony Integration (CTI) range of products provides an interface between your personal computer (PC) and your Enterprise Edge system. With these products, you can use telephony applications on your Windows® computer to control your Enterprise Edge telephone.

One of the basic software components of Enterprise Edge CTI is Enterprise Edge TSP. Enterprise Edge TSP works with Microsoft® TAPI and Windows® NT to allow your telephony application to communicate with and control your Enterprise Edge telephone.

How does Enterprise Edge TSP work?

Enterprise Edge TSP works with three other software components, each providing a different function. The four software components are:

- Telephony applications
  Telephony applications are installed on client PCs. Enterprise Edge TSP users run telephony applications to control their Enterprise Edge telephone. With these applications, Enterprise Edge TSP users give commands, such as answer telephone, to the Enterprise Edge system. The telephony applications also display messages, such as telephone ringing, received from the Enterprise Edge system. An example of a telephony application is Enterprise Edge Personal Call Manager.
- Windows operating system
  Windows is installed on the Server and the client PCs. Windows passes commands from the telephony application to TAPI and messages from TAPI to the telephony application.
- Microsoft Telephony Application Programming Interface (TAPI)
  TAPI is installed on the Enterprise Edge Server and the client PCs. TAPI converts industry standard commands received from Windows into a format that Enterprise Edge TSP can understand. It also converts messages from Enterprise Edge TSP into an industry standard format and gives them to Windows.
- Enterprise Edge TSP
  Enterprise Edge TSP is installed on the Enterprise Edge server as a Windows NT service. Enterprise Edge TSP receives commands from TAPI and converts them into a format that is understood by the Enterprise Edge system. It also receives messages from the Enterprise Edge system and converts them into a format that is understood by TAPI.

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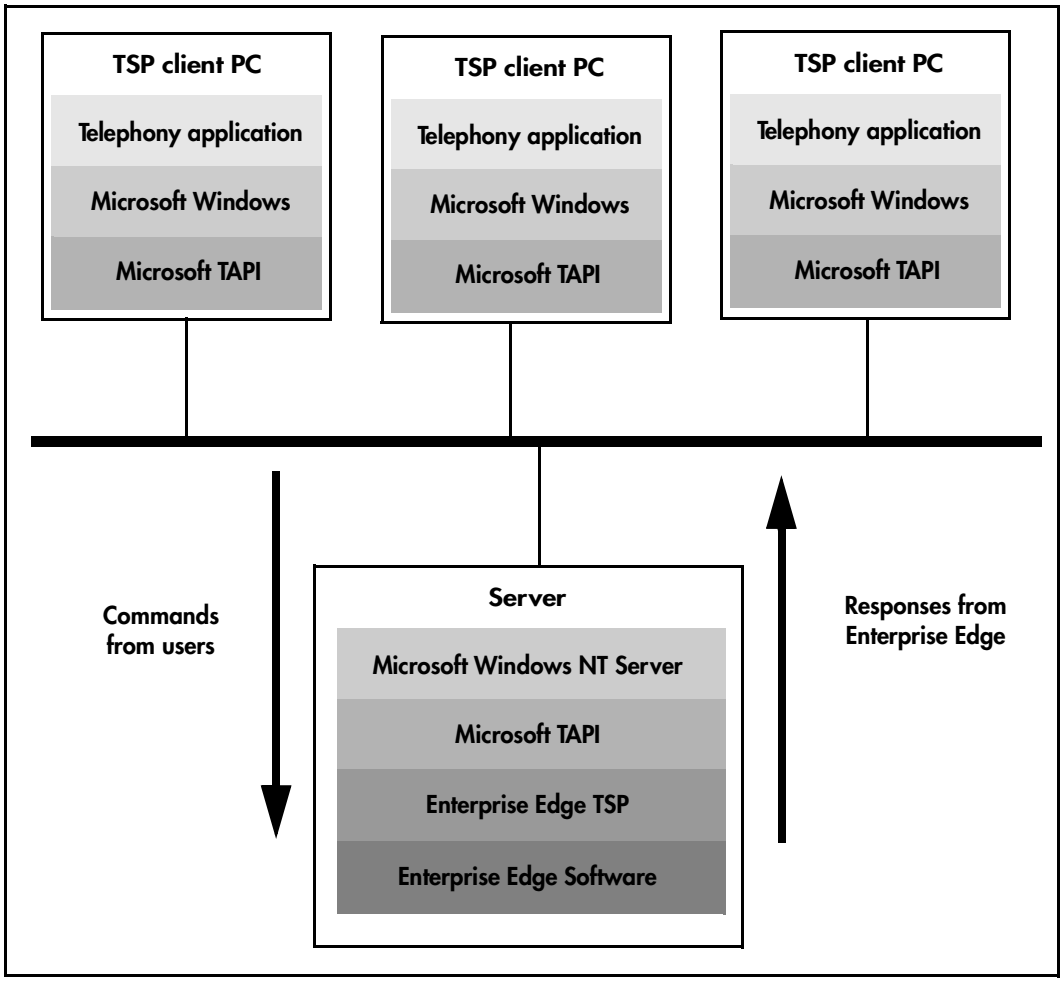
The figure Enterprise Edge TSP overview on page 6 shows how messages and commands are passed between the client PCs and the Enterprise Edge system.

Enterprise Edge TSP overview



Operating system requirements

The Enterprise Edge server uses Windows NT Server 4.0 and Microsoft TAPI 2.1.

You must also install TAPI 2.1 on all of the client PCs. If you do not have TAPI 2.1 installed, refer to Installing Microsoft TAPI 2.1 on client PCs on page 17 for instructions on how to install it.

Configuring the Enterprise Edge server for Enterprise Edge TSP 2

To use the Enterprise Edge TSP, you must install and configure applications on the Enterprise Edge server and the client PCs.

Server installation overview

1. Set up the Enterprise Edge server as a member server in a domain.
   For more information, refer to Setting up the Enterprise Edge server as a member server in a domain on page 8.
2. Set up a TAPI domain account with administration privileges on the member server. For more information, refer to Setting up the TAPI administrator account on page 9.
3. Configure TAPI on the Enterprise Edge server.
   For more information, refer to Configuring TAPI on the Enterprise Edge server on page 10.
4. Add Enterprise Edge TSP clients.
   For more information, refer to Adding Enterprise Edge TSP clients to the TAPI Server on page 11.
5. Reboot the Enterprise Edge server.

Starting an Enterprise Edge Unified Manager session

You use Enterprise Edge Unified Manager to configure Enterprise Edge TSP on the Enterprise Edge server.

To start an Enterprise Edge Unified Manager session:

1. Start a web browser on a computer with a LAN connection to the Enterprise Edge system. For information about the web browser requirements, refer to Browser requirements on page 35.

2. Enter the IP address of the Enterprise Edge server and the port number for Enterprise Edge Unified Manager. The Enterprise Edge Unified Manager port number is 6800.
   For example: **http://10.10.10.1:6800**.

   Note: If you do not know the IP address of the Enterprise Edge server, ask your network administrator.

3. Click the **Configure** button.

4. Type your user name in the **Login** box. The default user name is supervisor.

5. Type your password in the **Password** box. The default password is visor.

6. Click the **Connect** button.

Setting up the Enterprise Edge server as a member server in a domain

To set up the Enterprise Edge server as a member server:

1. If your Enterprise Edge server is a stand-alone server, ask your network administrator to add your stand-alone server to the domain. This changes your stand-alone server into a member server.

2. Ask your Network Administrator to ensure all of the TAPI users are in the same domain as the TAPI domain-account.

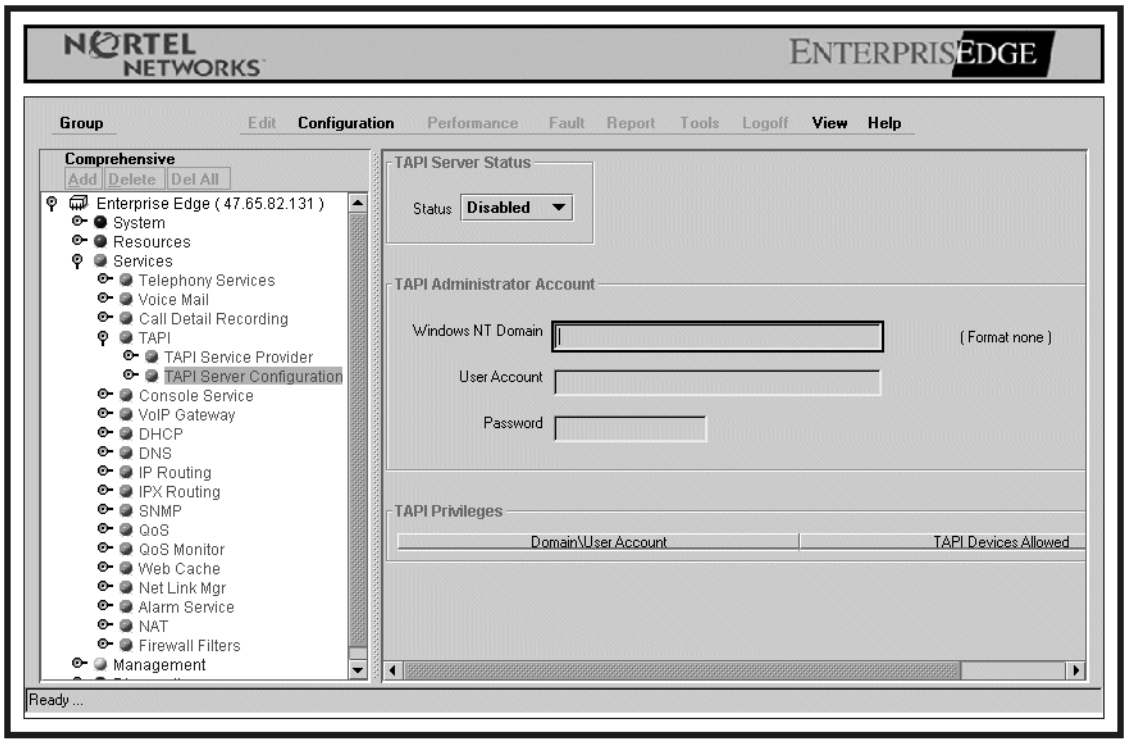
Setting up the TAPI administrator account

You must set up the TAPI administrator account before you can enable Enterprise Edge TSP.

To set up this account:

1. Start an Enterprise Edge Unified Manager session. For more information, Starting an Enterprise Edge Unified Manager session on page 8.

2. Choose **Services**, **TAPI**, and then **TAPI Server Configuration**.
   The TAPI Server Configuration screen appears.



3. In the **Windows NT Domain** box, enter the domain name for the Enterprise Edge server.

4. In the **User Account** box, enter the account name for the TAPI administrator.

5. In the **Password** box, enter the password for the TAPI administrator.

6. Quit Enterprise Edge Unified Manager.

Configuring TAPI on the Enterprise Edge server

You must configure the TAPI Server on the Enterprise Edge server before network users can use it to access Enterprise Edge TSP.

To configure the Enterprise Edge server you must:

- enable the TAPI Server
- add Enterprise Edge TSP clients to the TAPI Server
- assign telephones to Enterprise Edge TSP clients

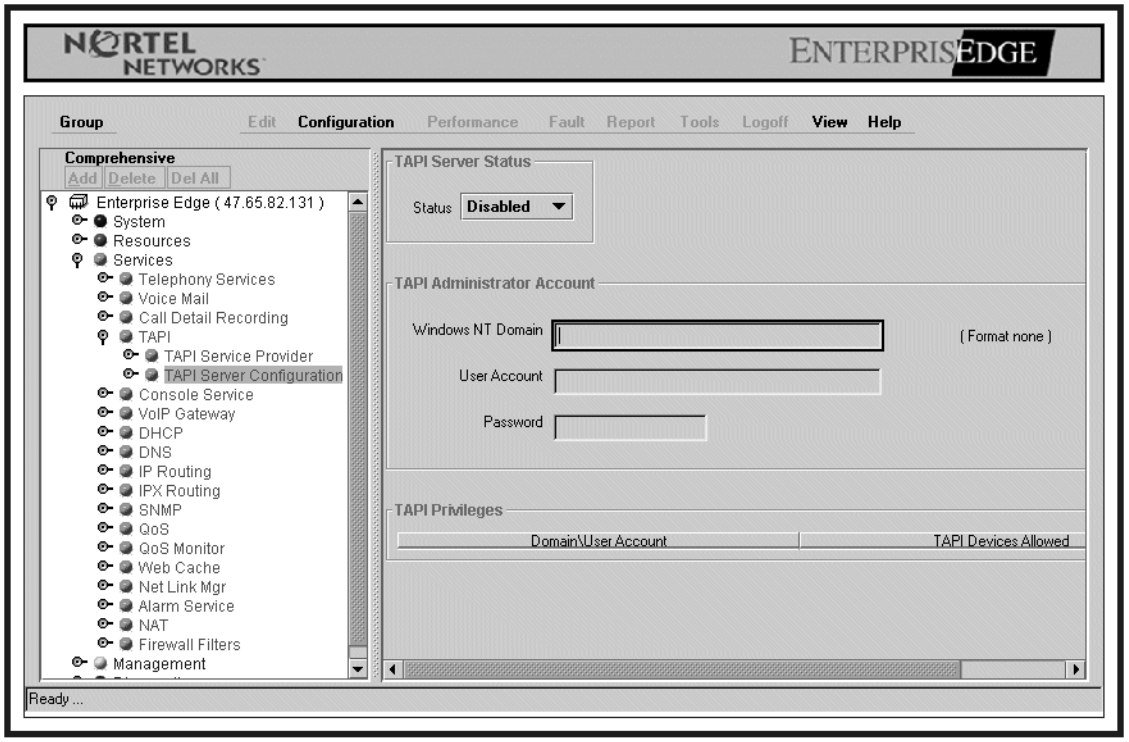
Enabling the TAPI Server

TAPI Server must be enabled before Enterprise Edge TSP clients can connect.

To enable the TAPI server:

1. Start an Enterprise Edge Unified Manager session. For more information, Starting an Enterprise Edge Unified Manager session on page 8.

2. Choose **Services**, **TAPI**, and **TAPI Server Configuration**.
   The TAPI Server Configuration screen appears.



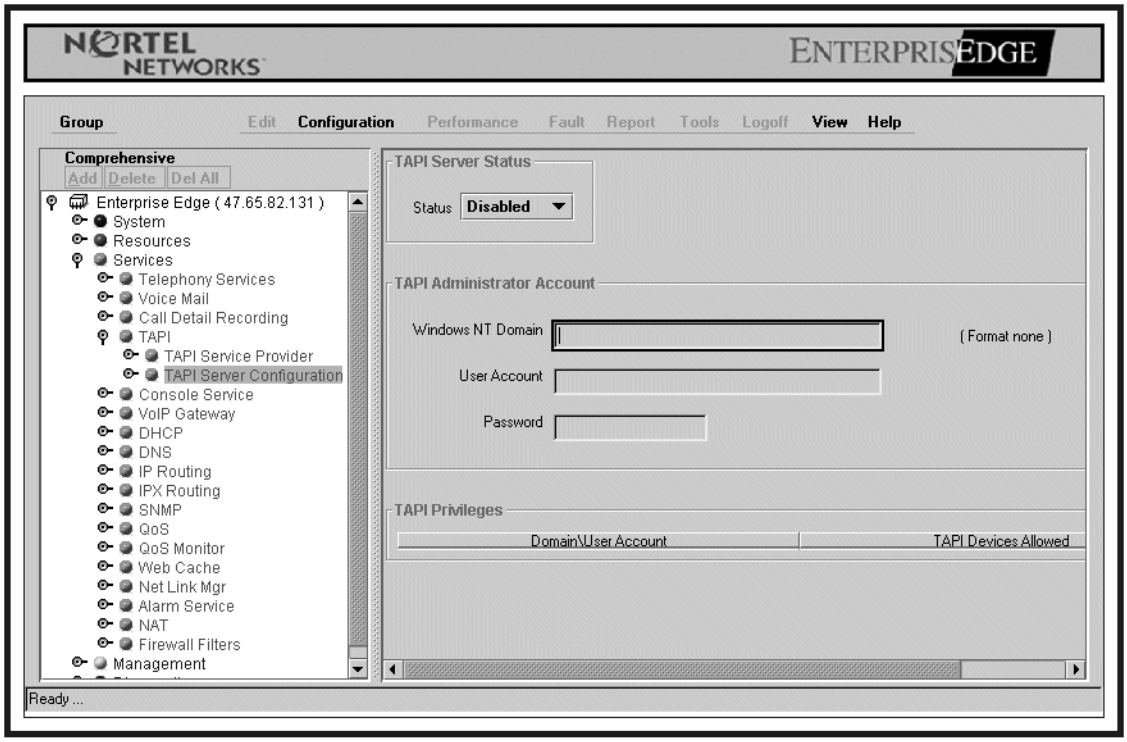
3. Click the **Status** list box.
4. Click **Enabled**.
5. Restart the Enterprise Edge server.

Disabling the TAPI server

To disable the TAPI server:

1. Start an Enterprise Edge Unified Manager session. For more information, Starting an Enterprise Edge Unified Manager session on page 8.

2. Choose **Services**, **TAPI**, and **TAPI Server Configuration**.
   The TAPI Server Configuration screen appears.



3. Click the **Status** list box.

4. Click **Disabled**.

5. Quit Enterprise Edge Unified Manager.

Adding Enterprise Edge TSP clients to the TAPI Server

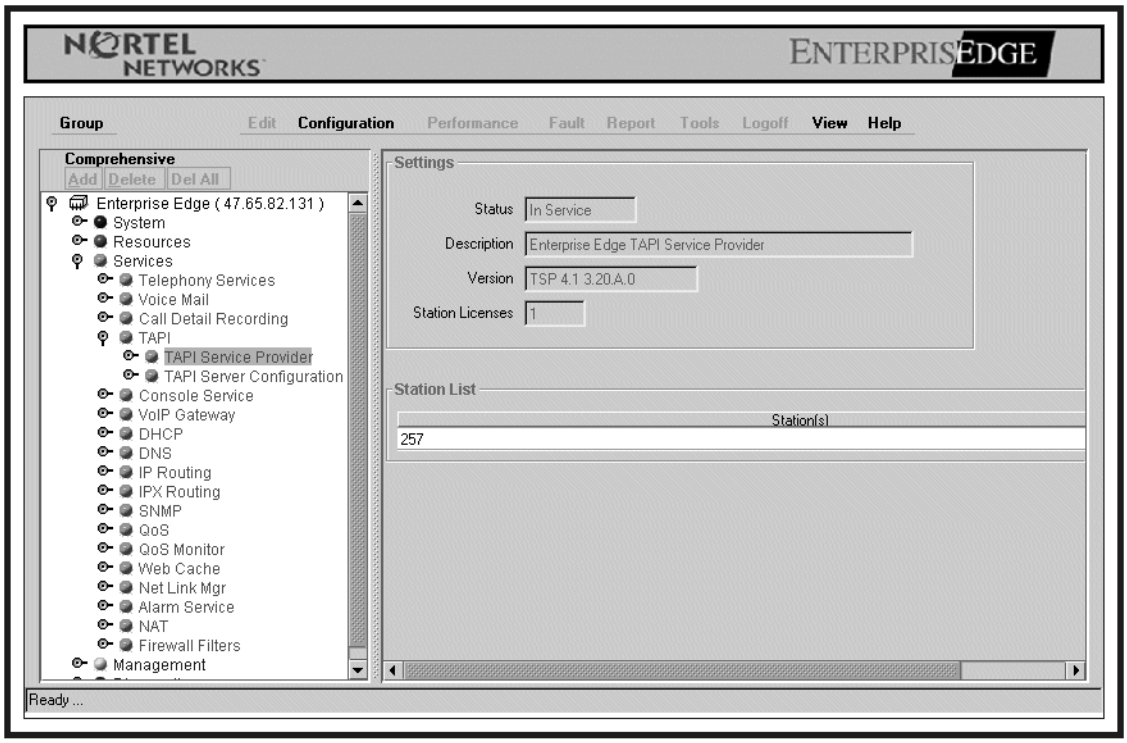
You need to register each Enterprise Edge TSP client with the TAPI Server. Only clients registered with the TAPI Server will be allowed to use Enterprise Edge TSP.

To register an Enterprise Edge TSP client, add the extension number of the clients's telephone to the list of extensions registered with TAPI Server.

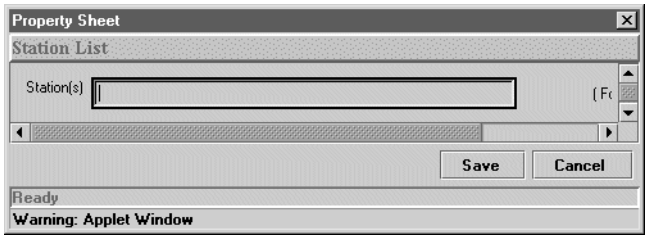
To add an Enterprise Edge TSP client:

1. Start an Enterprise Edge Unified Manager session. For more information, Starting an Enterprise Edge Unified Manager session on page 8.

2. Choose **Service**, **TAPI**, and **TAPI Service Provider**.
   The TAPI Service Provider screen appears.



3. Click the **Configuration** menu and **Add Station to List**.



4. Click the **Station** box and type the extension number of the client you want to add.

   Note: Make sure you add valid extension numbers only. Adding an invalid extension number causes Enterprise Edge TSP to function incorrectly.

5. Click the **Save** button.

6. Repeat steps three to five for each Enterprise Edge TSP client you want to add.

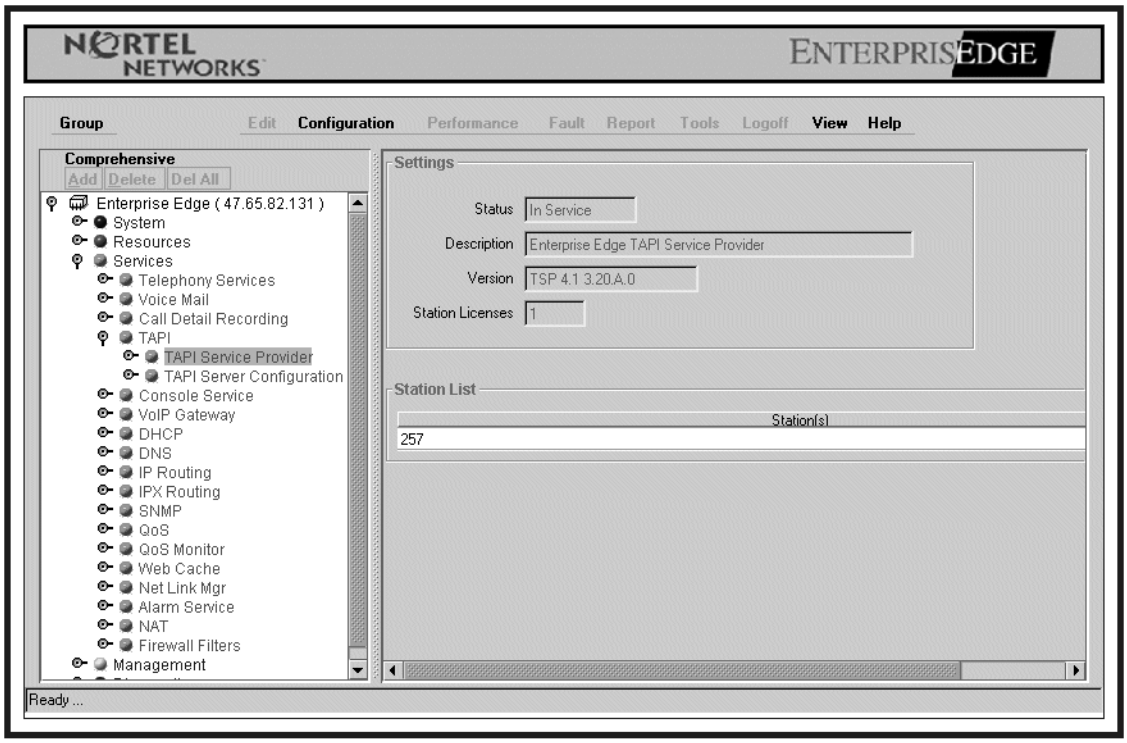
7. When you are finished adding clients, quit Enterprise Edge Unified Manager.

Removing Enterprise Edge TSP clients

If there is an Enterprise Edge TSP client that no longer uses Enterprise Edge TSP, you can delete that client. To delete a Enterprise Edge TSP client:

1. Start an Enterprise Edge Unified Manager session. For more information, Starting an Enterprise Edge Unified Manager session on page 8.

2. Choose **Service**, **TAPI**, and **TAPI Service Provider**.
   The TAPI Service Provider screen appears.



3. Click the extension number you want to delete.
4. Click the **Configuration** menu and then click **Remove Station from List**.
5. Click the **Yes** button to confirm deleting the client.
6. Repeat steps three to five for each Enterprise Edge TSP client you want to delete.
7. When you are finished adding clients, quit Enterprise Edge Unified Manager.

Assigning a telephone to an Enterprise Edge TSP client

You must assign an extension number to each TSP client's network user ID. The Enterprise Edge server uses this information to make sure the correct telephone is controlled by an Enterprise Edge TSP client.

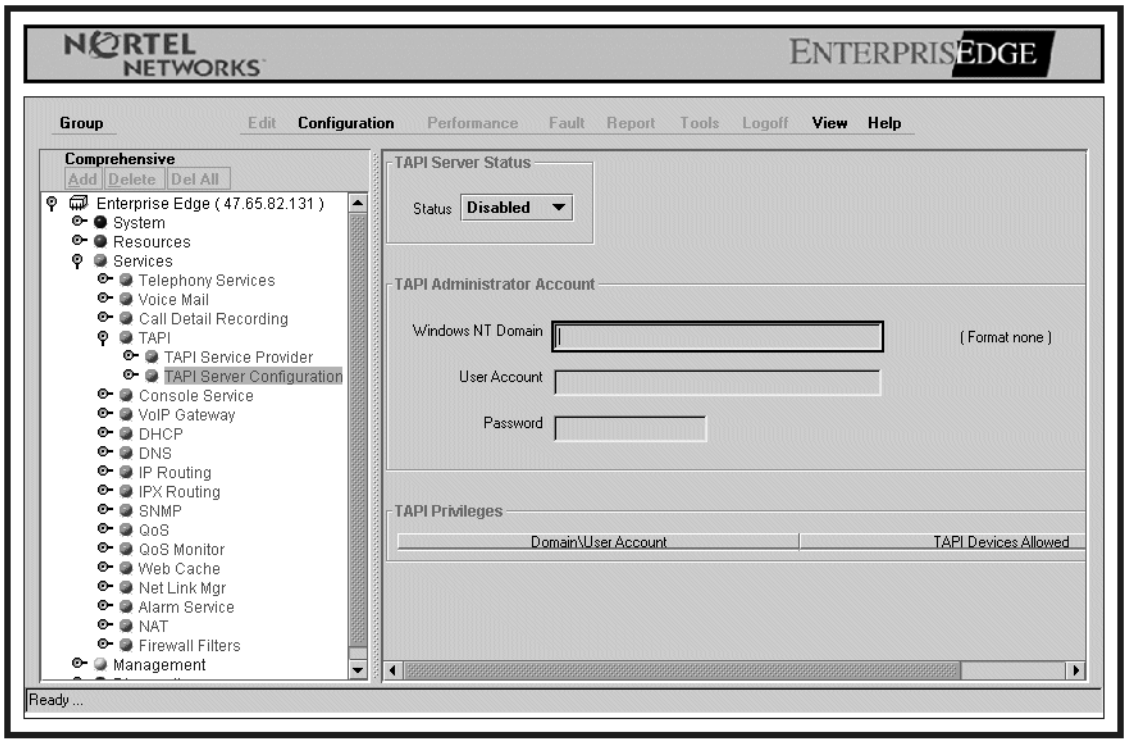
You add the extension numbers using the TAPI Service Provider screen. You assign the extension numbers to the network user IDs using the TAPI Server Configuration screen.

Tip: Although an Enterprise Edge TSP client can log on from any computer on the network, the extension number associated with that client does not change unless you change it on the TAPI Server Configuration screen. This allows Enterprise Edge TSP clients to receive TAPI messages for their telephone from any computer they log on to. This also means that the TAPI messages Enterprise Edge TSP clients receive are always for the telephone assigned to them, not necessarily the telephone beside the computer they are using.

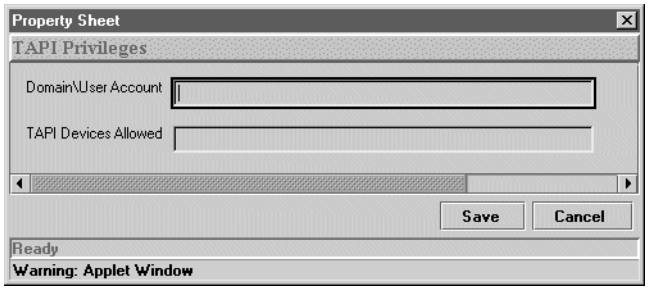
To assign a telephone to an Enterprise Edge TSP client

1. Start an Enterprise Edge Unified Manager session. For more information, Starting an Enterprise Edge Unified Manager session on page 8.

2. Choose **Services**, **TAPI**, and **TAPI Server Configuration**.
   The TAPI Server Configuration screen appears.



3. Click the **Configuration** menu and then click **Add Entry to Privileges List**.

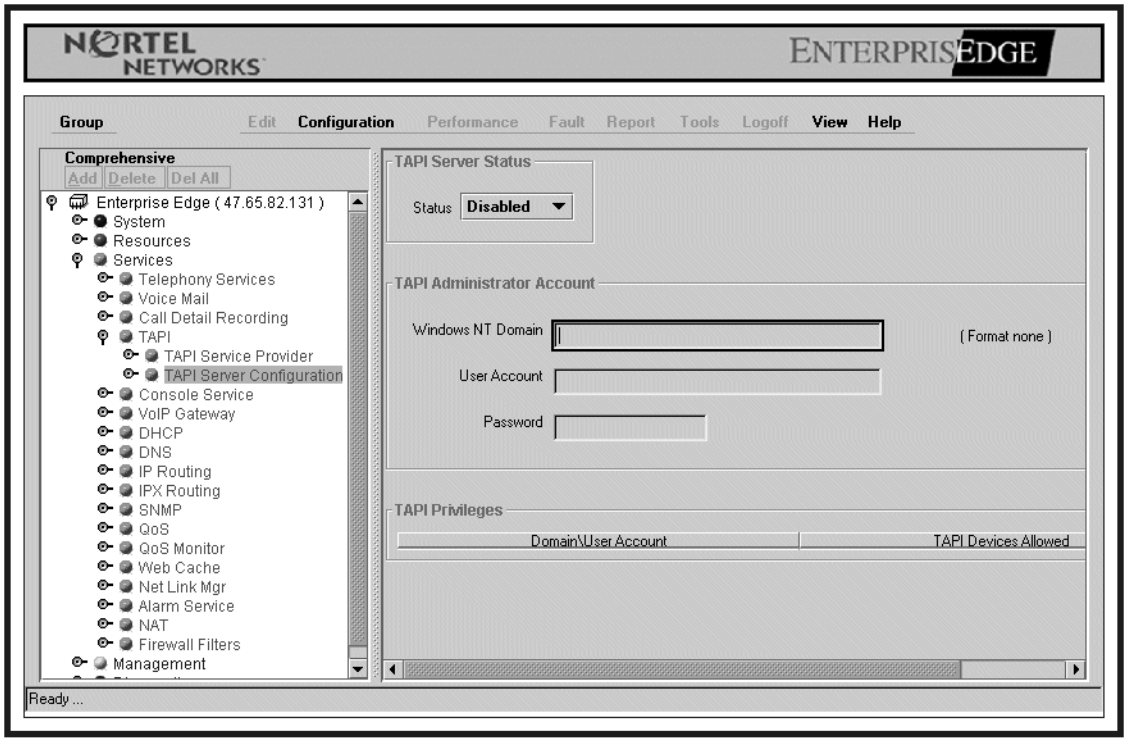


4. In the **Domain\User Account** box, enter the Windows Networking user account of the Enterprise Edge TSP client.
5. In the **TAPI Devices Allowed** box, enter the extension number of the Enterprise Edge TSP client's telephone.
6. Click the **Save** button.
7. Repeat steps three to six for all of the Enterprise Edge TSP clients you want to add.
8. When you are finished assigning telephones, quit Enterprise Edge Unified Manager.

Removing a telephone assignment

1. Start an Enterprise Edge Unified Manager session. For more information, Starting an Enterprise Edge Unified Manager session on page 8.

2. Choose **Services**, **TAPI**, and **TAPI Server Configuration**.
   The TAPI Server Configuration screen appears.



3. Click the user account name of the Enterprise Edge TSP client.
4. Click the **Configuration** menu and then click **Remove Entry from Privileges List**.
5. Click the **Yes** button.
6. Repeat steps three to five for each telephone assignment you want to remove.
7. When you are finished removing telephones assignments, quit Enterprise Edge Unified Manager.

Configuring a client PC to use Enterprise Edge TSP 3

To use Enterprise Edge TSP from a client PC, you must install and configure applications on the client PCs.

Client installation overview

You must do the following steps on each client PC that uses Enterprise Edge TSP.

1. Install TAPI 2.1 on the client PCs.
   For more information, refer Installing Microsoft TAPI 2.1 on client PCs on page 17.
2. Configure TAPI on the client PCs.
   For more information, refer to Configuring TAPI on a client PC on page 18.

Installing Microsoft TAPI 2.1 on client PCs

You must install TAPI 2.1 on each of the client PCs. This allows the client PCs and the Enterprise Edge server to communicate.

Note: The TAPI 2.1 information in this guide is a supplement to the *Microsoft TAPI Readme.txt* file provided with the Microsoft TAPI 2.1 Upgrade. Be sure to read this file and install TAPI 2.1 according those instructions.

Installing TAPI 2.1 on Windows NT 4.0 Workstations

To install TAPI 2.1 on Windows NT 4.0 Workstation PCs, use Windows NT 4.0 Service Pack 4 or later. Service Pack 4 automatically adds TAPI 2.1 to the Windows NT Workstation. Install Service Pack 4 or later before you configure the TAPI client.

Important: You must install Service Pack 4 or later on client PCs that use Windows NT. Service Pack 4 contains additional improvements to the Windows NT Workstation telephony component that are required for Enterprise Edge TSP.

Windows NT 4.0 Service Pack 4 is available on the Microsoft web site.

To install Service Pack 4, follow the instructions in the*Readme.txt* file included with it.

Installing TAPI 2.1 on Windows 95

TAPI 2.1 is available on the Microsoft web site.

Be sure to read the *Readme.txt* file and the license agreement included with the upgrade before installing.

Installing TAPI 2.1 on Windows 98

You do not need to install TAPI 2.1 on Windows 98 PCs. TAPI 2.1 is included with Windows 98.

Installing the TCP/IP protocol on the client PC

The TCP/IP protocol must be installed on the client PCs. Refer to your Windows documentation for instructions on how to install the TCP/IP protocol.

Configuring TAPI on a client PC

You must configure each client PC to work with the Enterprise Edge server. To configure the client PC you must:

- configure the network settings
- register with the Enterprise Edge server
- set the dialing properties
- restart the client PC

Configuring the network settings on the client PC

For the client PC to communicate with the Enterprise Edge server, there are three network settings required.

The client PC must be in the same domain as the Enterprise Edge server.

The client PCs can be logged into only one domain at a time. Remove the client PCs from any prior domains before setting up the client.

Tip: The client PC can be in a different domain if there is an appropriate trust relationship established between the two domains.

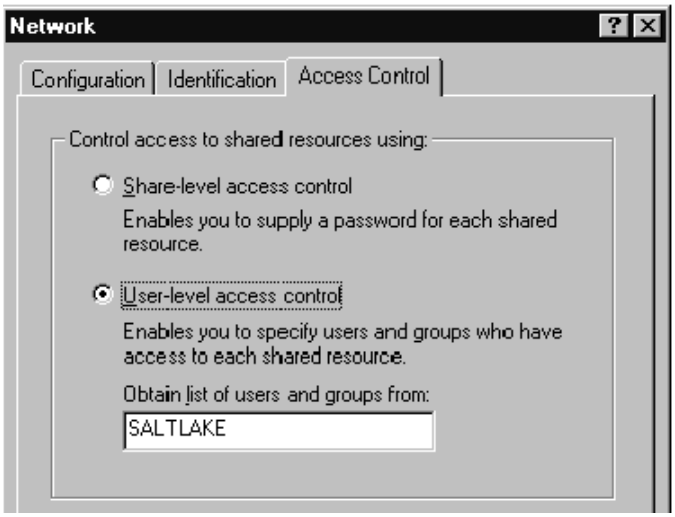
The Access Control must be set to user level.

On Windows 95 client machines, you must set access control to user level.

To set the Access Control on the client PC:

1. On the client PC, click the **Start** button, point to **Settings** and click **Control Panel**.
2. Double click the **Network** icon.

3. Click the **Access Control** tab.



4. Select the **User-level access control** option.
5. Ensure the correct domain name is entered in the **Obtain list of users and groups from** box. In this example, SALTLAKE.
6. Click the **OK** button.

File and Print Sharing must be enabled

On Windows 95 client PCs, you must enable the File and Print Sharing.

To enable the File and Print Sharing on the client PC:

1. On the client PC, click the **Start** button, point to **Settings** and then click **Control Panel**.
2. Double click the **Network** icon.
3. Click the **File and Print Sharing** button.
   The File and Print Sharing dialog box appears.

4. Select both of the **File and Print Sharing** options and click the **OK** button.

Registering with the Enterprise Edge server

A client PC must register with the Enterprise Edge server. Registering identifies which Windows NT server the Enterprise Edge TSP client uses.

You need to register the client PC with an Enterprise Edge server only once. The client PC continues to use the same Enterprise Edge server, even after the client PC is restarted.

To register with the Enterprise Edge server:

1. On the client PC, click the **Start** button and then click **Run**.
   The Run dialog box appears.
2. Type: **TCMSETUP /C servername**.

   Note: In this step **servername** is used as an example. It represents the name of the Enterprise Edge server the user is registering with. Contact your network administrator for the name of the Enterprise Edge server.
3. Click the **OK** button.
   A message appears confirming that you have registered with the Enterprise Edge server.
4. Click the **OK** button.

Changing the Enterprise Edge server a client uses

If there is more than one Enterprise Edge server in the domain, clients can change the server they use. To change the Enterprise Edge server used:

1. On the client PC, click the **Start** button and click **Run**.
   The Run dialog box appears.
2. Type **TCMSETUP /C servername**.

   Note: In this step, **servername** is used as an example. It represents the name of the Enterprise Edge server the user is registering with. Contact your network administrator for the name of the Enterprise Edge server.
3. Click the **OK** button.
   A message appears confirming that you are registered with the new Enterprise Edge server.
4. Click the **OK** button.

Canceling registration with the Enterprise Edge server

Occasionally you may need to cancel registration with the Enterprise Edge server.

To cancel registration with the Enterprise Edge server:

1. On the client PC, click the **Start** button and then click **Run**.
   The Run dialog box appears.
2. Type **TCMSETUP /C /D**.
3. Click the **OK** button.
   A message appears confirming that you have cancelled registration with the Enterprise Edge server.
4. Click the **OK** button.

Restart the client PC and the Enterprise Edge server

After you have finished configuring and registering all of the client PCs, restart the Enterprise Edge server.

After you restart the Enterprise Edge server, restart all of the client PCs.

Setting the Dialing Properties

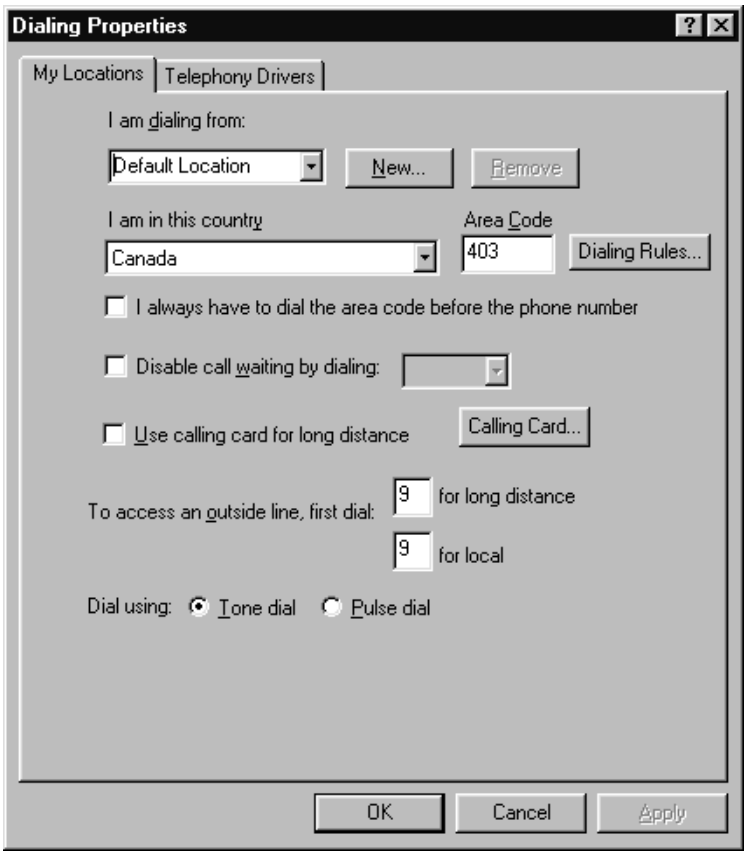
Some telephony applications use the dialing properties to define how calls are dialed. Refer to the documentation that came with the telephony application to determine if the dialing properties are required for the client PC.

Note: This document is based on the Windows 95 operating system. Due to differences between the Windows operating systems supported by Enterprise Edge Personal Call Manager, the information on the Dialing Properties dialog box may vary from what is described in this document. Consult your Windows documentation for more information.

The dialing properties are accessed from the Dialing Properties dialog box.
To open the Dialing Properties dialog box:

1. Click the **Start** button, point to **Settings** and then click **Control Panel**.

2. Double click the **Telephony** icon.
   The Dialing Properties dialog box appears.



From the Dialing Properties dialog box you can:

- choose the location you are dialing from (**I am dialing from**)
- choose the country you are in (**I am in this country**)
- set the area code you are dialing from (**Area Code**)
- set the number used to disable Call Waiting (**Disable call waiting by dialing**)
- choose whether to use a calling card (**Use a calling card for long distance**)
- set how to access to lines (**To access an outside line**)
- choose the type of dialing system (**Dial using**)

I am dialing from

Use the **I am dialing from** list box to save sets of dialing properties. You use this list box when you have a computer, such as a lap top, that you use at different locations. The settings for the different locations are saved under different names in the **I am dialing from** list box. You can then quickly change to the new settings when you switch locations.

For example, you may have a lap top computer that you use at both the north and south locations. If they have different dialing requirements, such as call waiting in the north but not in the south, you can set up different sets of dialing properties in the **I am dialing from** list box. Then, when you switch locations, you can change the dialing properties by changing the name that appears in the **I am dialing from** list box.

Creating a new location

When you create a new location, you are creating the name that is used to access the new set of dialing properties. After you create the location, any changes made to Dialing Properties dialog box are saved with this name.

To create a new location:

1. Click the **New** button.
   A dialog box appears confirming that a new location was created.
2. Select the text in the **I am dialing from** list box.
3. Enter the name of the new location.
4. Change the other information on the **Dialing Properties** dialog box to match the dialing properties required for this location.
   This information is described later in this section.
5. Click the **Apply** button to store the changes with the new location.

Selecting a location

When you select a location, all of the dialing properties are changed to the settings that are stored for that location.

To select a location:

1. Click the arrow in the **I am dialing from** list box. A list of locations appears.
2. Click your current location.
   The dialing properties are changed to the settings stored for this location.

Deleting a location

When you no longer need a location, you can delete it from the list of locations.

To delete a location:

1. Click the arrow in the **I am dialing from** list box. The list of locations appears.
2. Click the location you want to delete.
3. Click the **Remove** button.
   A confirm deletion message appears.
4. Click the **Yes** button.

I am in this country

This list box defines the country you are currently in.

To select a country:

1. Click the arrow in the **I am in this country** list box.
2. Scroll through the list of countries.
3. Click the country you are in.

Tip: You can scroll quickly through the list of countries by typing the first few letters of the country's name. As you type, the list moves to the first country that matches the letters you type.

Area Code

The **Area Code** box defines the area code you are currently in. Enterprise Edge TSP uses the number in this box to determine if a call is a local call or a long distance call.

To enter an area code:

1. Select the characters in the **Area Code** box.
2. Type the area code.

In some locations, the area code must always be added when dialing a telephone number. To make Enterprise Edge TSP include the area code, select the **I always have to dial the area code before the phone number** option.

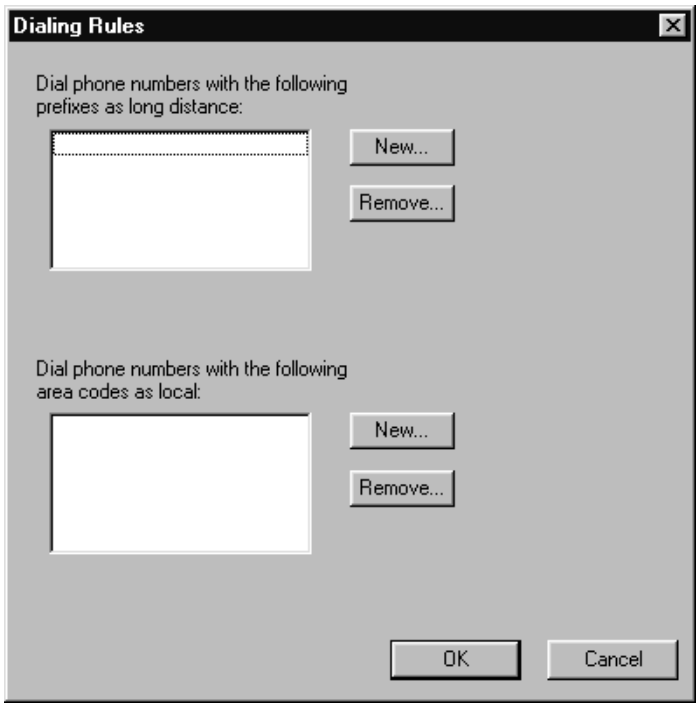
Dialing Rules

In some locations, calls within the same area code are considered long distance calls. These calls require the area code (for example, 1-403) to be added to the front of the telephone number before they are dialed.

The Dialing Rules feature allows you to define the prefixes (for example, 222-xxxx) that are long distance calls in your area code.

To set the prefixes that are long distance:

1. Click the **Dialing Rules** button.
   The Dialing Rules dialog box appears.



To add a prefix that is considered long distance

1. Click the **New** button located in the upper half of the dialog box.
   The New Area Code and Prefix dialog box appears.
2. Type the prefix and click the **OK** button.

To delete a prefix that is considered long distance

1. Click the prefix you want to delete.
2. Click the **Remove** button.

To add a prefix that is considered local

1. Click the **New** button located in the lower half of the dialog box.
   The New Area Code and Prefix dialog box appears.
2. Type the prefix and click the **OK** button.

To delete a prefix that is considered local

1. Click the prefix you want to delete.
2. Click the **Remove** button.

Use a calling card for long distance

Select this option if you want to use a calling card for long distance telephone numbers. The **Calling Card** button lets you define which calling card you are using.

To use a calling card:

1. Select the **Use calling card for long distance** option.
   If you have previously set up a calling card, the settings for that calling card are used.
   If you have not set up a calling card, refer to Setting up a calling card.

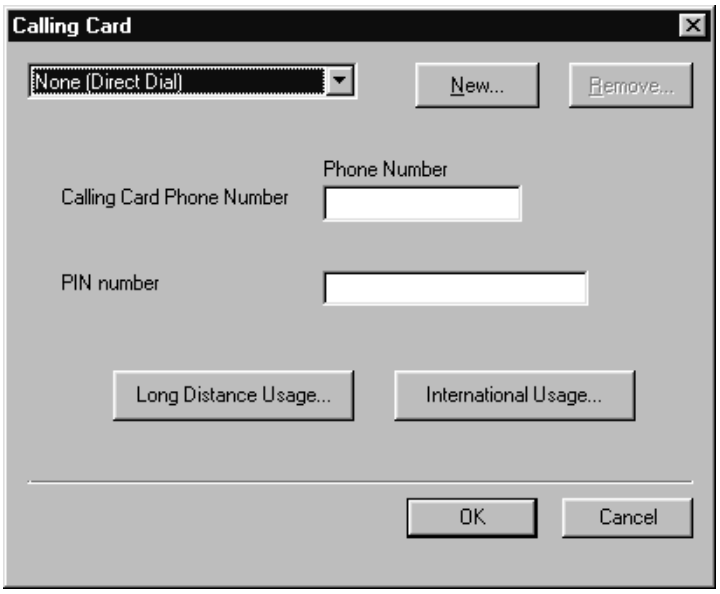
To stop using a calling card:

1. Clear the **Use calling card for long distance** option.

Setting up a calling card

You must set up the calling card parameters before you can use a calling card. To set up a calling card:

1. Click the **Calling Card** button.
   The Calling Card dialog box appears.



2. Click the list box at the top of the dialog box.
3. Scroll through the list to find the calling card you are using and click the calling card.

   Note: If the calling card you are using is not on this list, refer to Adding a custom calling card on page 27.

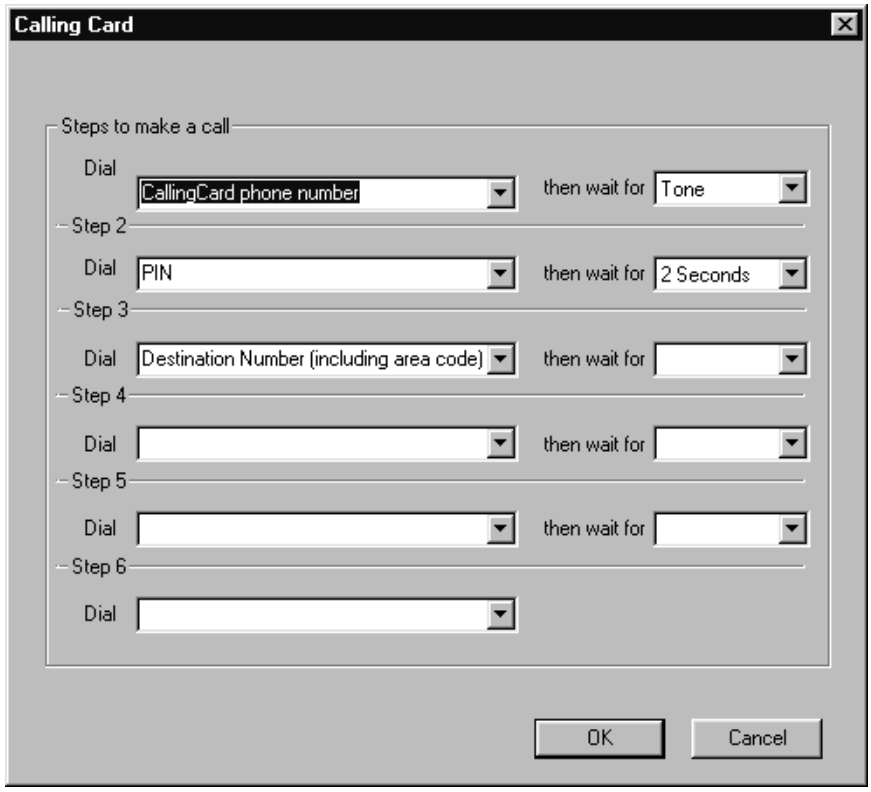
4. Click the **Calling Card Phone Number** box and type the calling card telephone number.
5. Click the **PIN number** box and type your calling card PIN number.
6. Click the **OK** button.

Adding a custom calling card

The dialing parameters for some calling cards are already configured and appear in the list of calling cards. If the calling card you are using is not on the list of cards, you must add it.

To add a custom calling card:

1. Click the **Calling Card** button.
   The Calling Card dialog box appears.
2. Click the **New** button.
   The Create New Calling Card dialog box appears.
3. Type the name of the calling card and click the **OK** button.
   A message appears informing you that you must set up the dialing rules for the new calling card.
4. Click the **OK** button.
5. Click the **Calling Card Phone Number** box and type the calling card number.
6. Click the **PIN number** box and type your calling card PIN number.
7. Click the **Long Distance Usage** button.
   A second Calling Card dialog box appears.



8. Click the first **Dial** list box and then click the first set of numbers to dial.
9. Click the next **Dial** list box and then click the next set of numbers to dial.

10. Repeat step nine until you complete all of the steps needed to make a call using your calling card.

    Note: Refer to the documentation that came with your calling card for the sequence of steps that are required with your card.

11. When all of the required steps are added, click the **OK** button.

12. Click the **International Usage** button.

13. Repeat steps eight to 11 to add the steps required to make an international call.

14. Click on the **OK** button to return to the Dialing Properties dialog box.

Disable call waiting by dialing

If call waiting is available for the current location, use this field to define the numbers required to disable call waiting. Your telephony application uses these numbers to disable call waiting when required.

To enter the numbers required to disable call waiting:

1. Select the **Disable call waiting by dialing** option.

2. Click the arrow in the **Disable call waiting by dialing** list box and click the appropriate disable call waiting code.
   If the appropriate code does not appear on the list, click the list box and type the disable call waiting code.

If call waiting is not used, clear the **Disable call waiting by dialing** option.

To access outside lines

There are two boxes for accessing outside lines. The first box is for the digits required to access local numbers and the second box is for the digits required to access long distance lines. These access numbers are required if you are using a line pool or call routing to make calls. These numbers are the same numbers you dial if you are making an outside call from your telephone.

If you do not dial an extra number (e.g. 9) when making a call from your telephone, leave these boxes blank.

To change the outside line access numbers:

1. Select the **for long distance** box and type the number required to access an outside line for a long distance call.

2. Select the **for local** box and type the number required to access an outside line for a local call.

Dial using

Use these options to choose tone dialing signals or pulse dialing signals when making a call. To select pulse dialing, click the **Pulse dial** option. To select tone dialing, click the **Tone dial** option.

Viewing Enterprise Edge TSP information 4

After Enterprise Edge TSP is installed and configured, you can view information about Enterprise Edge TSP and how it is operating. You can view:

- information about Enterprise Edge TSP
- Enterprise Edge TSP error messages

Accessing the Enterprise Edge TSP information

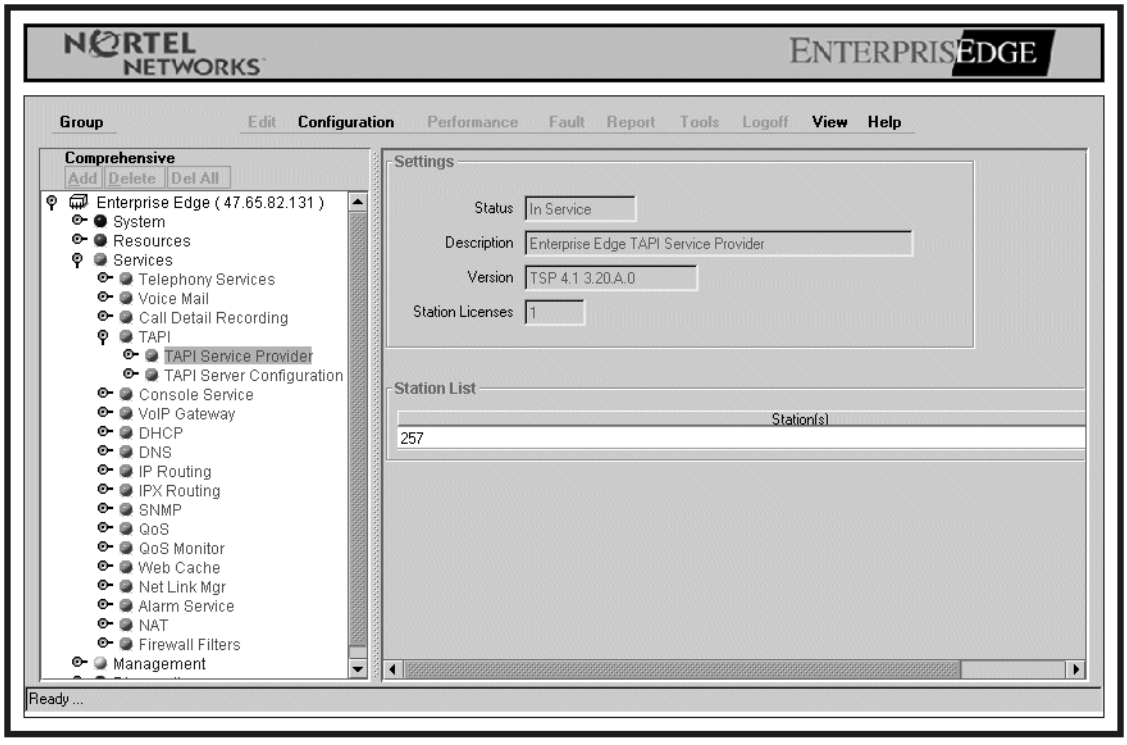
From the TAPI Service Provider screen in Enterprise Edge Unified Manager you can:

- view the Enterprise Edge TSP version number
- view the Enterprise Edge TSP status

To access Enterprise Edge TSP information:

1. Start an Enterprise Edge Unified Manager session. For more information, Starting an Enterprise Edge Unified Manager session on page 8.

2. Choose **Service**, **TAPI** and **TAPI Service Provider**.
   The TAPI Service Provider screen appears.



Viewing the Enterprise Edge TSP version number

The Enterprise Edge TSP version number appears in the **Version** field. The information in this field identifies the Enterprise Edge TSP software version installed on the Server.

Viewing the Enterprise Edge TSP status

The Enterprise Edge TSP status appears in the **Status** field. This field indicates whether Enterprise Edge TSP is functioning.

In Service - Enterprise Edge TSP is functioning and can communicate with the Enterprise Edge system.

Not in Service - Enterprise Edge TSP cannot communicate with the Enterprise Edge system. Typical causes for no communication are:

- the Enterprise Edge system is not operating
- the Telephony Service in Windows NT Server is not running

Enterprise Edge TSP error messages

When Enterprise Edge TSP encounters an error, an error message appears on the computer display. In this message is a description of what the error is and a recommendation about what to do.

Troubleshooting 5

This section describes problems you may encounter when using Enterprise Edge TSP. With each problem is a solution.

Troubleshooting while using Enterprise Edge TSP

Normally, when Enterprise Edge TSP encounters an error, an error message appears on the display. These error messages describe the problem and recommends a solution.

Enterprise Edge TSP stops functioning on client PCs that were previously functioning

- Check that the TAPI server is acquiring telephones correctly.

  Open the TAPI Server Configuration screen in Enterprise Edge Unified Manager. For more information, refer to Assigning a telephone to an Enterprise Edge TSP client on page 14.

  Check to see if the affected TAPI clients still have a telephone assigned to them.

  If a TAPI client does not have a telephone device assigned, the TAPI server is not acquiring the telephones properly. This can be caused by changing the extension number of the telephone or by the telephone going out of service.

Enterprise Edge TSP clients are not able to access their extensions when using a TAPI application

- Check all the settings on both the Enterprise Edge server and the client PC.
- If the Enterprise Edge server becomes unavailable, you must restart the client PCs to get their TAPI services back. Always restart the client PCs after the Enterprise Edge server is restarted.
- Install the NetBEUI protocol on the Enterprise Edge server and the client PCs.

Enterprise Edge TSP tips 6

Starting Enterprise Edge TSP

The TAPI server starts up when any TAPI application or service is launched (for example, TSP Launcher). During start up, the TAPI server acquires all of the telephones identified in the TAPI Server Configuration. Acquiring the telephones runs in the background and can take as long a five seconds for each telephone. If you have a TAPI service setup to start at boot time, the Server's start up can take a number of minutes to complete. For example, if you have a Server configured with 50 telephones, initialization of TAPI server can add four minutes to the server start up time.

Appendix A: Enterprise Edge Unified Manager requirements

Perform most of the administration for the Enterprise Edge system using Enterprise Edge Unified Manager. Enterprise Edge Unified Manager operates on the Enterprise Edge system, but you access it using a web browser running on another computer on the network.

Computer requirements

The computer you use to run Enterprise Edge Unified Manager must have:

- a 133 Mhz or higher Pentium CPU (or compatible)
- 64 MB RAM
- 10 MB disk space available
- a minimum screen resolution of 1024 x 768
- a minimum monitor size of 17 inches

Browser requirements

To use Enterprise Edge Unified Manager, you must have:

- Java Virtual Machine (JVM) 5.0 (build 5.0.0.3188 or greater)
- one of the following web browsers:
  - Netscape Communicator 4.5 or greater
  - Microsoft Internet Explorer 4.0 or greater

If you are using Netscape Communicator, set the following parameters:

- Enable Java: On
- Cached document comparison: Every time

If you are using Microsoft Internet Explorer, set the following parameters:

- Check for newer versions: Every visit to the page
- Java JIT compiler enabled: On

For information about setting these parameters, check the documentation that came with your web browser.

Glossary

List of acronyms

CTI

Computer Telephony Integration

TAPI

Telephony Application Programming Interface

Glossary terms

Computer Telephony Integration

A set of hardware and software components that allows computers to access and control telephones.

TAPI service provider

A set of commands developed by the telephone manufacturer that interprets TAPI commands into a form that is understood by the telephone system.

Telephony Application Programming Interface (TAPI)

A set of programming tools developed by Microsoft that provides a standard set of commands used to control any telephone. For most telephone systems, a TAPI service provider is required to use TAPI.